

MAMINKOVA, B. Z.

Effect of temperature on the properties of cords L.
Ya. Yaminshaya. *Gumtechout and Rubber* (U.S.S.R.)
1940, No. 6-7, 82. - Cotton cord as a rule suffers a loss
in strength on heating, whereas viscose cord does not lose
its strength but even shows a tendency to increase in
strength. Hence in constructing tires and belts it is neces-
sary to consider the strength of the cord at the operating
temps. of the object rather than that at the conditioning
humidity and temp.

B. Z. Kamich

YAMINSKAYA, Ye.Ya.; TROSHKINA, Ye.V.; KARGIN, V.A.

Importance of friction force in fatigue strength of cotton cord.
Kauch. i rez. 16 no.5:25-27 My '57. (MLRA 10:7)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Friction) (Cordage--Testing)

SOV/638-58-6-5/25

AUTHORS: Nagdaseva, I.P., Yaminskaya, Ye. Ya., and Spirin, A.P.

TITLE: The use of Semiconductors for Measuring the Temperature developed in Tire Cords (Primeneniye poluprovodnikovykh datchikov dlya zamera temperatury v nityakh korda)

PERIODICAL: Kauchuk i Rezina, 1958, ¹⁷Nr 6, pp 17 - 20 (USSR)

ABSTRACT: Both the rubber and the cord in tires undergo deformation which is accompanied by the formation of heat, and the temperature of the tire tread reaches 80 - 120°C. The increase in the formation of heat is one of the main reasons for the premature deterioration of the tires. The evaluation of the capacity of heat formation of the materials is, therefore, of great importance. An apparatus was constructed for measuring the temperature in the cord fibres by a contactless convection method using thermistors. These thermistors were made from a mixture of manganese oxide and cobaltic hydroxide; their main advantage lies in the fact that they have a large negative temperature coefficient of resistance amounting to -3 to -6% for 1°C change in ambient temperature. With increasing temperatures, the coefficient of resistance decreases.

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SOV/138.-58-6-5/25

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The thermistors can be made with high ohmic resistance. The thermistors used in this experiment had a resistance of the order of 40,000 ohms. Fig 1 shows the circuit of an apparatus which can be used in two temperature ranges: from 20° - 70°C and from 70° - 120°C. In this method the thermistors react to the changes of temperature in the cord. The surface of the thermistors turned towards the cord is very small (1.5 mm²), and radiation emission of the cord during its deformation plays little part when measuring the temperature of the cord. The thermistors have no direct contact with the cord. Fig 2 shows a graph for the interpretation of results between 20° and 70°C at different room temperatures. Accuracy of the apparatus is $\pm 3\%$. Fig 3 gives a photograph of the apparatus. It was tested for periods of 1 week, 3 months and 6 months, and gave accurate results within the temperature limits 20° - 120°C. Heat formation in the cord was measured on a 24 strand test machine, constructed by A.S. Skachkov of NIIShP, for testing the endurance of tire cords by

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SOV/1380-58-6-5/25

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in Tire Cords

repeated tensile deformation. The strands are stretched and relaxed to a sinusoidal load pattern, as depicted in Fig 4, and at a frequency of 616 cycles per minute. The actual loads to which the strands were subjected were checked with strain gauges. The load pattern, depicted, has equal time of loading and unloading. Tests were also made with a load pattern where the time of loading (0.037 secs) was approximately half the time of unloading (0.0603 secs). The table shows the endurance and the temperatures attained with these two regimes. With symmetrical loading, the strands endured over one million cycles, and their temperature stabilized at 42° C. With the other load regime, the strands failed at 7369 cycles, and attained a maximum temperature of 84.5°C. The strands were of Kapron (Nylon). Fig 5 shows how

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temperature stabilizes fairly quickly. The lower
curve is for the symmetrical load regime. After 10
minutes endurance test with the symmetrical load regime
the strands had stretched 3.2 mm, and in the same time
with the other regime the strands stretched 7.8 mm.

There are 5 figures and 1 table

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy
promyshlennosti (Research Institute for the Tire Industry)

1. Tires--Temperature factors
2. Temperature--Measurement
3. Semiconductors--Application

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SOV/138-58-9-4/11

AUTHORS:

Pavlov, N. N.; Yaminskaya, Ye. Ya.; Krymov, B. M.

TITLE:

The Use of Strain Gauges for Investigation of the Behaviour of Cord Threads at High Rates of Extension (Primeneniye tenzodatchikov dlya issledovaniya povedeniya kordnykh nitey pri bol'shikh skorostyakh rastyazheniya)

PERIODICAL:

Kauchuk i Rezina, 1958, ¹Nr 9, pp 12 - 16 (USSR)

ABSTRACT:

The strength and durability of tyre cord material is assessed by repeated extension tests. The strength of the individual cords is measured by sudden application of a load, and the energy of rupture by loss of potential energy of a pendulum. In order to know the true character of the material on rupture at various rates of loading, it is necessary to obtain load/extension curves, as well as to know the total energy. Fig.1 illustrates two possible curves for different rates of loading on similar specimens. The authors describe apparatus constructed at NIISHP (National Institute for Tyre Production) designed to give load/extension curves for threads stretched at the rate of 1.5 m/second. At this rate, the duration of the test to rupture of the specimen is from one hundredth to one fiftieth of a second. The mechanical part

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of the apparatus, loading the specimen, is described in Ref.3 (Zhurnal Tekh. Fiz. 23, sect.6, 933, (1953). Measurement of the force acting on the thread as it is loaded is made by means of the steel beam depicted in Fig.3. Deflection of the beam is measured by four strain gauges bonded to it. The basic circuit diagram for the strain gauge connections is shown in Fig.4; the circuit, however, is fed with an a.c. carrier frequency of 5000 cycles/second to permit amplification of current flowing in the detector circuit through unbalance of the bridge on loading the beam which changes the resistance of the top and bottom gauges. The detector is described as a magneto-electric oscillograph, Type MPO-2. This produces a trace at a natural vibration frequency of 3000 cycles/second which can be recorded directly onto 35 mm film with a sensitivity of 1 mm/ma, or onto a screen with a sensitivity of 4 mm/ma. The movement of the trace is of the order of 1 mm for 100 g load on the steel beam. The beam deflects 1.2 to 1.4 hundredths of a millimeter at the moment of rupture of the thread,

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Threads at High Rates of Extension

according to the speed of deformation. Deflection, or extension of the thread is measured by a separate, rheostatic, gauge system. (Indicated by part 5 in the general schematic illustration of the whole system in Fig.7). Calibration curves for the gauge system measuring force, and the gauge system measuring deflection, are shown in Figs. 5 and 6 respectively. The two measuring systems combine to produce a trace on x -- y axes as shown in Fig.9. A time scale trace is superimposed. Interpretations of traces taken at rates of deflection varying from .005 m/second to 1.5 m/second give load/extension curves as in Fig.10 for standard nylon cord material, Fig.11 for nylon after boil in water for three hours (curve I unboiled, curves II and III boiled), or Fig.12 for "imported" Terylene. Good reproducibility is obtained with the apparatus, with respect to both force and deflection measurements, not more than 4% departure from average measurement occurred in tests with 25 - 30 similar specimens. The curves indicate that increasing rates of deflection lead to a sharp decrease in the extension at rupture. Changes in the modulus of the material with respect to rate of deflection must be

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attributed to relaxation processes. A table is given relating the energy of rupture for nylon (kapron) and Terylene to rates of deflection from 0.041 to 1.5 m/second. It is stated that the apparatus can give readable traces at rates of deflection up to 5 m/second. There are 12 Figures and 1 Table, 12 References: 6 English, 1 German and 5 Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tyre Industry)

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SOV/69-20-6-3/15

AUTHORS: Berestnev, V.A., Gatovskaya, T.V., Kargin, V.A., Yazinskaya, Ye.Ya.

TITLE: Studies of the Physical-Chemical Properties of Cord Fibers (Izucheniye fiziko-khimicheskikh svoystv kordnykh volokon).
1. The Heat Effects of Dissolution of Capron Fibers (Teplovyye efekty rastvoreniya kapronovogo volokna)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol 20, Nr 6, pp 694-696 (USSR)

ABSTRACT: The microstructure of cord fibers and their changes have been investigated by thermodynamical methods. The table shows that the decrease in heat effects during heating in water is different for stretched and unstretched specimens. The difference is 0.77 kcal/g or 25% of the total heat effect. The dissolution heat decreases sharply during heating of capron fibers in formic acid which is explained by an increase in crystallinity of the polymer. Repeated stretching has no effect on the heat of dissolution. The dissolution heat of a rolled specimen is 24.5% higher than in initial specimens. Cord fatigue is due to macrodefects in the fiber. There is 1 set of photos, 1 table, and 4 Soviet references.

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SOV/69-20-6-3/15

Studies of the Physical-Chemical Properties of Cord Fibers. 1. The Heat Effects of Dissolution of Capron Fibers

ASSOCIATIONS: Fiziko-khimicheskiy institut imeni L.Ya. Karpova (Institute of Physics and Chemistry imeni L.Ya. Karpov). Nauchno-issledovatel'skiy institut shinnoy promyshlennosti, Moskva (Scientific Research Institute of the Tire Industry, Moscow)

SUBMITTED: October 5, 1957

1. Capron fibers--Physical properties 2. Capron fibers--Chemical properties 3. Capron fibers--Test methods 4. Capron fibers--Temperature factors

Card 2/2

AUTHORS: Kargin, V. A., Member, Academy of Sciences, USSR, Berestnev, V. A., Gatovskaya, T. V., Yaminskaya, Ye. Ya. SOV/20-122-4-36/57

TITLE: On the Mechanism of Fiber Failure (K voprosu o mekhanizme razrusheniya volokna)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 668-670 (USSR)

ABSTRACT: It has been previously proved that the variations of the molecular structure of cord-caprone fibers with various mechanical influences are not large. Therefore, it cannot be said that these changes play an important role in the destruction process of a fiber (Ref 1). It has been assumed that the decisive factor, which was responsible for the destruction of the fiber with repeated cyclic influence, is the development of macrodefects in the material. The direct experimental proof of this fact was of interest. For this purpose, determinations of the stability of the cordcaprone fiber were carried out after the fiber had been treated with a surface-active agent (oleic acid). By this, the surface tension was reduced, in particular on the

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damaged spots of the fiber. Thus, the macrodefects were able to expand (Ref 2). This is confirmed by table 1. Washing out of the cord by means of carbon tetrachloride for the removal of the oleic acid increases the solidity of the fiber (Table 1, Sample 3). Table 1 gives further evidence on the stability and stretch (up to fatigue) of the investigated samples. These data remain unchanged, without dependence upon the kind of treatment of the fiber. Thus, with destruction of the cord by a repeated and single type of influence, different factors play the important role. In the first case the macro defects are mainly responsible, whereas during just one operation (tension test on a dynamometer) the effect of these factors is not large. Possibly, in this case the destruction of the cord is substantially related to the simultaneous destruction of a large number of molecular chains in the weakest places of the fiber. In order to confirm this assumption the viscosity of the fiber solutions before and after the mechanical treatment (repeated cyclic extension and breaking on the dynamometer) was measured. The results of the characteristic viscosity of these solutions in an 85 % formic

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acid solution are given in table 2. It is seen from this that the decrease in viscosity of solutions from fibers, which have been torn on the dynamometer, is considerably higher than with a repeated extension. During fatigue the viscosity value falls somewhat in the initial period and then remains stable even at breaking. Inversely, at breaking on the dynamometer the specific viscosity is maintained up to the destruction of the fiber. At the time and on the site of breaking only, it drops rapidly. Therefore, it might be supposed that the destruction of a fiber in consequence of repeated mechanical influence is due to the continuous development of macrodefects at depth. During this, only a few chains are broken in a small cross section; during a single extension, the breaking of a considerable number of molecular chains in a weak part of the fiber determines the destruction of the fiber. There are 2 tables and 2 references, 2 of which are Soviet.

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On the Mechanism of Fiber Failure

SOV/20-122-4-36/57

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute imeni L. Ya. Karpov)
Nauchno-issledovatel'skiy institut shinnoy promyshlennosti
(Scientific Research Institute of the Tire-Industry)

SUBMITTED: June 24, 1958

Card 4/4

BERESTNEV, V.A.; GATOVSKAYA, T.V.; KARGIN, V.A.; YAMINSKAYA, Ye.Ya.

Study of the physicochemical properties of cord fibers.
Part 2: Effect of thermal and mechanical action on the sorption
properties of capron cord. Vysokom. soed. 1 no.3:337-341 Mr '59.
(MIRA 12:10)

1.Fiziko-khimicheskiy institut im. I.Ya. Karpova i Nauchno-
issledovatel'skiy institut shinnoy promyshlennosti.
(Nylon)

BERESTNEV, V.A.; GATOVSKAYA, T.V.; KARGIN, V.A.; YAMINSKAYA, Ye.Ya.

Study of the physicochemical properties of cord fibers. Part 3:
Some changes in the structure of fibers occurring in repeated cyclic
stretching. Vysokom. soed. 1 no.3:373-377 Mr '59.
(MIRA 12:10)

1.Fiziko-khimicheskiy institut im. L.Ya. Karpova i Nauchno-
issledovatel'skiy institut shinnoy promyshlennosti.
(Nylon--Testing)

BERESTNEV, V.A.; GATOVSKAYA, T.V.; KARGIN, V.A.; YAMINSKAYA, Ye.Ya.

Mechanism of the process of fiber fatigue. Khim.volok. no.6:
50-52 '59. (MIRA 13:5)

1. Nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut
i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Textile fibers, Synthetic--Testing)

S/138/60/000/006/004/008
A051/A029

AUTHORS: Kozyreva, Z.M., Nagdaseva, I.P., Yaminskaya, Ye.Ya. ✓
TITLE: Resistance of Cord to Repeated Stretching Deformations on the
BAP-1 (VDR-1) Apparatus

PERIODICAL: Kauchuk i Rezina, 1960, No. 6, pp. 30 - 34.

TEXT: The VDR-1 apparatus (Fig. 1) is used for the testing of individual cord fibers under the action of cyclic stretching loads. It was manufactured at the "Metallist" plant according to the NIISHP model designed by A.S. Skachkov. A detailed outline of the component parts in addition to a description of their coordination is given. This instrument ensures results comparable to those of the tread performance. Data are obtained of the effects of temperature and loads on the cord resistance to repeated stretching deformations. Measurements carried out under laboratory conditions showed that in the deformation of the cord fibers in the top layer of the tread at the same depth depression of the block and at an equal internal pressure the caprone cord fibers in the tread are deformed by

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S/138/60/000/006/004/008
A051/A029

Resistance of Cord to Repeated Stretching Deformations on the BAP-1 (VDR-1)
Apparatus

1.5 to 2.0% more than the viscose cord fibers due to their higher elasticity. It is shown (Table 2) that caprone cord under operation conditions is subjected to less stress than viscose or cotton fiber in the tire. Performance testing of automobile tires cannot give a complete characterization of the cord resistance, since the treads are damaged due to various causes. A number of cord brands with different elasticity moduli were tested for comparative purposes (Fig. 4). Microphotographs are submitted which show that the fiber structure has undergone severe destruction along its length under repeatedly applied force. This does not occur when stress is applied on the dynamometer. There are 8 figures, 5 tables and 5 references: 1 Soviet, 3 English and 1 German. ✓

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti
(Scientific Research Institute of the Tire Industry)

Card 2/2

LYTKINA, M.B.; YAMINSKAYA, Ye.Ya.; YEVSTRATOV, V.F.; TROSHKINA, Ye.V.

Basic properties required of automobile tire cords. *Kauch.1*
rez. 19 no.3:9-13 Mr '60. (*MIRA 13:6*)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Tire fabrics)

ZEYDLITS, P.M.; YAMENSKIY, V.A.

Accelerator systems operating on waves analogous to H. Atom. energ.
10 no.5:469-477 My '61. (MIRA 14:5)
(Particle accelerators)

LYTKINA, M.B.; YAMINSKAYA, Ye.Ya.; TROSHKINA, Ye.V.

Properties of cord made from extrastrong "Meryl" viscose fibers
and its applications. Khim.volok. no.2:37-40 '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Rayon) (Tire fabrics)

KOZYREVA, Zoya Mikhaylovna; NAGDASEVA, Inna Pavlovna; PISKAREV,
Ivan Vasil'yevich; CHARUKHIN, Ivan Gavrilovich;
YAMINSKAYA, Yelizaveta Yakovlevna; KUKIN, G.N., doktor
tekh. nauk, prof., retsenzent; AGADZHANOVA, I.A., red.

[Industrial fabrics and their use] Tekhnicheskie tkani i
ikh primeneniye. Moskva, Legkaia industriia, 1965. 251 p.
(MIRA 18:9)

YAMINSKIY, V. 7.

"Investigation of a Propeller-Type Supercharger." Cand Tech Sci, Moscow Order of Labor
Red Banner Higher Technical School imeni Bauman, 15 Feb 54. Dissertation (Vechernyaya
Moskva Moscow, 4 Feb 54)

SO: SUM 186, 19 Aug 1954

YAMINSKIY, V.V., kandidat tekhnicheskikh nauk.

Determination of the feeding coefficient of rotary superchargers
on the basis of the energy balance in the exhaust period. [Trudy]
MVTU no.35:215-227 '55. (MIRA 9:7)
(Superchargers)

YAMINSKIY, V.V., kandidat tekhnicheskikh nauk.

Analytic calculation of the profiles of the principal working
parts of rotary superchargers. [Trudy] MVTU no.35:228-239 '55,
(Superchargers) (MIRA 9:7)

YAMINSKIY, V.V., kand. tekhn. nauk.

Basic elements for the theoretical study and the standardization of
the design of rotary compressors. [Trudy] MVTU no.83:137-154 '58.
(Gas and oil engines) (Compressors) (MIRA 1116)

YAMINSKIY, V.V., kand. tekhn. nauk.

Development of designs of two-cycle diesel engines with loop
scavenging used in transportation. [Trudy] MVTU no.83:211-239
'58. (MIRA 11:6)

(Diesel engine)

SHAPOVALNIKOV, A.M., inzh.; YAMINSKIY, V.V., kand. tekhn. nauk

Analysis of some new systems of compressor units to be used
in locomotives. Trudy TSNII MPS no.163:215-238 '58.

(MIRA 12:2)

(Railroads--Brakes)

(Air compressors)

SHAPOVALENKO, A.M., inzh.; YAMINSKIY, V.V., kand. tekhn. nauk

General system for calculating the operating conditions and
for determining the feed coefficient of rotary compressors.
Trudy TSNII MPS no.163:239-257 '58. (MIRA 12:2)
(Railroads--Brakes) (Air compressors)

PHASE I BOOK EXPLOITATION

80V/5224

Yaminskiy, Vladimir Vasil'yevich

Rotornyye kompressory; voprosy profilirovaniya, teorii i rascheta
(Rotor Air Compressors; Problems in Profiling, Theory, and Design) Moscow, Mashgiz,
1960. 221 p. Errata slip inserted. 4,000 copies printed.

Reviewer: A.M. Yevtushenko, Candidate of Technical Sciences; Ed. of Publishing House:
L.N. Danilov; Tech. Ed.: G.V. Smirnova; Managing Ed. for Literature on General
Technical and Transport Machine Building: A.P. Kozlov, Engineer.

PURPOSE: This book is intended for engineering and technical workers interested in
designing, manufacturing, and operating rotor compressors. It may also be useful
to students and aspirants of technical institutions of higher education.

COVERAGE: The book presents theory of rotor compressors and describes methods of
calculating and profiling working elements. The methods are based on generaliza-
tions permitting the use of specific solutions for various types of rotor compres-
sors. Special attention is given to analysis of technological, design, and opera-
tional factors which determine the selection of types of rotor compressors for

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Rotor Air Compressors (Cont.)

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combustion engines, braking devices of railroad transport systems, and for some branches of chemical and refrigerating industries, air conditioning installations, and in pneumatic transport. Some information is given on tools for machining compressor parts. No personalities are mentioned. There are 48 references: 35 Soviet, 9 English, 3 German, and 1 Swedish..

TABLE OF CONTENTS:

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Ch. I. Factors Determining the Selection of the Shape of Basic Working Members	7
1. Indispensable conditions for securing the working process	7
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Card 2/6

SHCHEDROV, Viktor Sergeyevich; ARBUZOV, V.N., kand. tekhn. nauk, retsen-
zent; YAMINSKIY, V.V., kand. tekhn. nauk, red.; MIKITIN, A.G.,
red. izd-va; EL'KIND, V.D., tekhn. red.

[Fundamentals of the mechanics of a flexible string] Osnovy me-
khaniki gibkoi niti. Moskva, Gos. nauchno-tekhn. izd-vo mashino-
stroit. lit-ry, 1961. 170 p. (MIRA 14:6)
(Elastic rods and wires)

SHPITAL'NIKOV, Konstantin Fedorovich; NIKOL'SKIY, V.P., kand. tekhn. nauk, retsenzent; YAMINSKIY, V.V., kand. tekhn. nauk, red.; SAVEL'YEV, Ye.Ya., red. izd-va; KODEL', V.I., tekhn. red.

[Semiographical methods of determining the air parameters of the centrifugal stage of a compressor] Grafoanaliticheskie sposoby opredeleniia parametrov vozdukha v tsentrobezhnoi stupeni kompressora. Moskva, Mashgiz, 1961. 227 p. (MIRA 15:2)
(Compressors)

BORISOV, S.M., kand. tekhn. nauk; YAMINSKIY, V.V., kand. tekhn.
nauk, retsenzent
[Air-chamber friction clutches] Pnevmozakazernye friktsion-
nye mufty. Moskva, Izd-vo "Mashinostroenie," 1964. 133 p.
(MIRA 17:5)

GOLOVINTSOV, A.G., doktor tekhn.red. prof. [deceased]; RUMYANTSEV, V.A., dots.; ARDASHEV, V.I.; PESHTI, Yu.V.; PLASTININ, P.I.; SUSLOV, A.D.; FROLOV, Ye.S.; YAMINSKIY, V.V.; STRAKHOVICH, K.I., doktor tekhn.nauk, prof., retsenzent; PALEYEV, N.M., inzh., red.

[Rotary compressors] Rotatsionnye kompressory. [By] A.G. Golovintsov i dr. Moskva, Izd-vo "Mashinostroenie," 1964.
314 p. (MIRA 17:7)

1. Fakul'tet teplovykh i gidravlicheskiikh mashin Moskovskogo vysshego tekhnicheskogo uchilishcha imeni N.Ye. Bauman
(for all except Strakhovich, Paleyev).

KRABIN, A.I., prof. [deceased]; ZOBIN, V.S., inzh., retsenzent;
YAMINSKIY, V.V., kand. tekhn. nauk, red.

[Compressed air; production, use, means of economy] Szha-
tyi vozdukh; vyrabotka, potreblenie, puti ekonomii. Mo-
skva, Izd-vo "Mashinostroenie," 1964. 342 p.
(MIRA 17:5)

OL'KHOVIKOV, Yu.; GURTSKAYA, P.; BOROVITSKIY, B.; TITOV, A.; YAMKA, I.

The roll call of the detachments of the "Searchlight of the Communist Youth League" movement continues. Tekh.mol. 30 no.11:18-19 '62.
(MIRA 16:9)

1. Chlen oblastnogo shtaba Kommunisticheskoy partii, Rostov (for Ol'-khovikov). 2. Direktor Omskogo shinnogo zavoda (for Borovitskiy). 3. Sekretar' komiteta komsomola shakhty No.5 tresta Tkvarcheliugel", Tkvarcheli (for Gurtskaya). 4. Nachal'nik oblastnogo shtaba Kommunisticheskoy partii, sekretar' oblastnogo komiteta Vsesoyuznogo Leninskogo Kommunisticheskogo soyuza molodezhi (for Titov). 5. Predsedatel' kolkhoza "Zarya kommunizma", selo Tashlyk, UkrSSR (for Yamka).

(Communist Youth League)

YAMKOVA, I. K.

PA 31/4-175

USSR/Medicine - Arsphenamines
Medicine - Pleuropneumonia, Therapy

Jun 48

"The Use of 'Sovarsen' (Salvarsan) for Contagious
Pleuropneumonia in Horses," I. K. Yamkova, Chief
Vet, I. O. Sharonin, Vet Phys, "Ul'gulyudzhash"
Kolkhoz, Pkrovsk Rayon, Issyk-Kul'sk Oblast,
Kirgiz SSR, $\frac{1}{2}$ p

"Veterinariya" No 6

Describes how Sovarsen (Salvarsan) was successfully
used as a substitute for Novarsenol for treating
horses with pleuropneumonia.

31/49T75

KALER, L.B.; YAMKOVAYA, A.G.; PETSKO, P.A.

New types of canned food. Kons. i ov. prom. 16 no.9:20-21 S '61,
(MIRA 1478)

1. Belorusskiy nauchno-issledovatel'skiy institut promyshlennosti
prodovol'stvennykh tovarov.
(Vegetables, Canned) (Fruit, Canned)

KALER, L.B.; YAMKOVAYA, A.G.; Prinsipala uchastiye: KOMLENKOVA, A.I.,
laborantka

Vitaminizing of canned dinners. Trudy BNIIPPT no.4:33-43 '61.
(MIRA 17:10)

YAMKOVY, G.O. [Iamkovi, H.O.]

Utilization of wastes of the leather and shoe industry. Leh.
prom. no.4:22-24 O-D '64 (MIRA 18:1)

YAMKOVY, G.T., kandidat tekhnicheskikh nauk

Machine for deep boring in hard rock. Gor.zhur. no.8:31-34 Apr '55.
(Boring machinery) (MIRA 8:8)

YAMKOVY, G.T., inzh.; DYDZINSKIY, V.V., inzh.; PETRENKO, N.S., inzh.;
CHUB, V.F., inzh.; MIKHAYLOV, Yu.I., inzh.

Technical progress in the mining industry. Mekh. trud. rab. 11
no.12:12-15 D '57. (MIRA 11:3)
(Mining machinery)

Yamkovoy G.T.
PETRENKO, N.S., inzh.; KRUCHININA, Ye.V., inzh.; IVANOV, A.G., kand. tekhn.
nauk; YAMKOVY, G.T., kand. tekhn. nauk.

Ways of increasing bore rod resistance. Gor. zhur. no.2:26-31 P '58.
(Rock drills) (MIRA 11:3)

YAMKOVY, G.T., dotsent, kand.tokhn.nauk; CHEKANOV, N.L., dotsent

Ways of improving the performance of hoisting equipment in the
Krivoy Rog Basin. Gor.zhur. no.10:45-47 0 '60. (MIRA 13:9)

1. Krivorozhskiy gornordunyy institut.
-- -- (Krivoy Rog--Mine hoisting)

BELILOVSKIY, Yefim Solomonovich; BOGUSLAVSKIY, Eduard Yelizarevich;
BINUS, Mark Semenovich; VOLODIN, Aleksey Pavlovich; KUNIN,
Izvaslav Kopelovich, SELEKTOR, Spartak Mikhaylovich; CHUB,
Vasiliy Fedoseyevich; YAMKOVY, Grigoriy Tikhonovich; DMITRIYEV,
A.P., otv. red.; KOVAL', I.V., red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Improvement of underground mining methods and equipment in the
Krivoy Rog Basin] Sovershenstvovanie tekhniki i tekhnologii pod-
zemnoi dobychi rudy v Krivorozhskom basseine. [By] E.S. Belilov-
skii i dr. Moskva, Gos. nauchno-tekhn. izd-vo Lit-ry po gornomu
delu, 1961. 238 p. (MIRA 15:3)

(Krivoy Rog Basin--Iron mines and mining)
(Automatic control)

YAMVOVOY, G.T., kand.tekhn.nauk

Prospects for using air under high pressure in mining enter
prises. Sbor.nauch.trud.KGRI no. 21:183-186 '63. (MIRA 17:7)

YAKOVLEV, G.P., detainee, hard. techn. work

Testing rubber pin with highly compressed air. Sbor. nauch.
trud. KGB no. 01213-222 '61 (MIRA 17:8)

YAMKOVOY, G.T., kand. tekhn. nauk

Important potential for increasing the efficiency of compressor
stations. Gor. zhur. no.8:43-47 Ag '64. (MIRA 17:10)

1. Krivorozhskiy gornorudnyy institut.

YAMKOVY, I.F.

Some structural defects of equipment. Sakh.prom. 34 no.3:
35-37 Mr '80. (MIRA 13:6)

1. Sablino-Znamenskiy sakharney zavod,
(Sugar industry--Equipment and supplies)

YAMKOVY, I.P.

New way of treating severe forms of tetanus in district and regional hospitals. Vrach. delo no.10:124-127 O '61. (MIRA 14:12)

1. Zhitomirskaya gorodskaya bol'nitsa.
(TETANUS)

YAMKOVCH, I. P., (Zhitomir, ul. Pervogo Maya, d. 57, kv. 6)

Combined anesthesia using nitrous oxide and fractional doses of thiopental with the use of muscle relaxants in mitral commissurotomy. Vest. khir. no.2:111-116 '62. (MIRA 15:2)

1. Iz torakal'nogo otdeleniya (zav. - V. N. Krasnomovets) Zhitomirskoy oblastnoy bol'nitsy.

(MITRAL VALVE—SURGERY) (NITROUS OXIDE)
(THIOPENTAL) (MUSCLE RELAXANTS)

44-38861-26, 1-15.
 BC

B3
 2

Pump for filling tank cars with molasses. I. R. Yanukov and
 M. Y. Lyenko (Sakhar. Prom., 1960, No. 10, 97-98) *Soy. Ind.
 Akad.*, 1960, 12, 247).—A worm and toothed disc pump is described
 and illustrated. A 26-ton tank can be filled with molasses of sp. gr.
 1.38, with an 8-m. lift, in 20 min.; the power consumption is 15 kw.
 P. S. ARUP.

ALSO SEE METALLURGICAL LITERATURE CLASSIFICATION

USENKO, I. S.; YAMNICHENKO, I. M.

Donets Basin - Petrology

Traces of Jurassic volcanism in the northwestern part of the Donets Basin. Dokl.
AN SSSR 85 no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

YAMNICHENKO, I. M.

KONDRACHUK, V. Yu., and YAMNICHENKO, I. M.

"In the Geological Section of the Spring Sci. Session of the Acad. of Sci's
Ukr. SSR." (General Geology, Conf.) Geologichny zh. 13, No 3, 1953, pp 88-90

W-31146, 1 Feb 55

YAMNICHENKO, Ivan Moiseyevich [Yamnychenko, I.M.]; KAPTARENKO-CHEIRNOUSOVA,
O.K., prof., otv. red.; MEL'NIK, O.F. [Mel'nyk, H.F.], red. izd-va;
LYAMKIN, V. Ya. [Liankin, V. I.A.], tekhn. red.

[Loxonematidae from Jurassic deposits of the Dnieper-Donets
depression and the outlying regions of the Donets Basin]
Loxonematidae IUr'skykh vidkladiv Dniprovs'ko-Donets'koi
zapadyny ta okrain Donbasu. Kyiev. Vidavnytstvo AN Ukr. RSR.
1958. 43 p. (Akademiia nauk URSR. Kiev. Instytut geologich-
nykh nauk, Trudy. Seriia stratigrafii i paleontologii, no. 23)
(Dnieper Lowland--Gastropoda, Fossil)
(Donets Basin--Gastropoda, Fossil)

NIKITIN, Ivan Ivanovich; YAMNICHENKO, I.M. [Iamnichenko, I.M.]; POKROVSKAYA, Z.S.
[Pokrovs'ka, Z.S.]; red.izd-va; MATVIYCHUK, O.O., tekhn.red.

[Upper Cretaceous belemnites in the northeastern wing of the
Dnieper-Donets Lowland] Verkhn'okreidovi belemnity pivnichno-
skhidnoho kryla Dniprovs'ko-Donets'koi zapadyny. Kyiv, Vyd-vo
Akad. nauk Ukr.RSR. 1958. 90 p. (Akademia nauk URSR, Kiev.
Instytut geologichnykh nauk. Trudy. Seriya stratygrafii i
paleontologii, no.20) (MIRA 12:8)

(Dnieper Lowland--Belemnites)
(Donets Valley--Belemnites)

YAMNICHENKO, I.M.

AYZENBERG, D.Ye., geolog; BALUKHOVSKIY, N.F., geolog; BARTOSHEVSKIY, V.I., geolog; BASS, Yu.B., geolog; VADIMOV, N.T., geolog; GLADKIY, V.Ya., geolog; DIDKOVSKIY, V.Ya., geolog; YERSHOV, V.A., geolog; ZHEUKOV, G.V., geolog; ZAMORIY, P.K., geolog; IVANTISHIN, M.N., geolog; KAPTARENKO-CHERIKUSOVA, O.K., geolog; KLIMENKO, V.Ya., geolog; KLUSHIN, V.I., geolog; KLYUSHNIKOV, M.N., geolog; KRASHENINNIKOVA, O.V., geolog; KUTSYBA, A.M., geolog; LAPCHIK, F.Ye., geolog; LICHAK, I.L., geolog; MAKUKHINA, A.A., geolog; MATVIYENKO, Ye.M., geolog; MEDINA, V.S., geolog; MOLYAVKO, G.I., geolog; NAYDIN, D.P., geolog; NOVIK, Ye.O., geolog; POLOVKO, I.K., geolog; RODIONOV, S.P., geolog; SEMENENKO, N.P., akademik, geolog; SERGEYEV, A.D., geolog; SIROSHTAN, R.I., geolog; SLAVIN, V.I., geolog; SUKHAREVICH, P.P., geolog; TKACHUK, L.G., geolog; USENKO, I.S., geolog; USTIKOVSKIY, Yu.B., geolog; TSAROVSKIY, I.D., geolog; SHUL'GA, P.L., geolog; YURK, Yu.Yu., geolog; YAMNICHENKO, I.M., geolog; ANTROPOV, P.Ya., glavnyy redaktor; FILIPPOVA, B.S., red. izd-va; GUROVA, O.A., tekhn.red.

[Geology of the U.S.S.R.] Geologiya SSSR. Glav. red. P.IA.Antropov. Vol.5.[Ukrainian S.S.R., Moldavian S.S.R.] . . . Ukrainskaia SSR, Moldavskaya SSR. Red. V.A. Ershov, N.P. Semenenko. Pt.1.[Geological description of the platform area] Geologicheskoe opisanie platformennoi chasti. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr. 1958. 1000 p. [___ Supplement] ___ Prilozhenia.
(Continued on next card)

AYZENBERG, D.Ye.---(continued) Card 2.

3 fold.maps (in portfolio)

(MIRA 12:1)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geologii i okhrany neдр. 2. Ukrainskoye geologicheskoye upravleniye Ministerstva geologii i okhrany neдр SSSR i Institut geologicheskikh nauk Akademii nauk USSR (for all except Antropov, Filippova, Gurova).
3. Glavnyy geolog Ukrainskogo geologicheskogo upravleniya (for Yershov).
4. AN Ukrainskoy SSR (for Semenenko).

(Ukraine--Geology)

(Moldavia--Geology)

KAPTARENKO-CHERNOUSOVA, O.K.; YAMNICHENKO, I.M.; STANISLAVSKIY, F.A.
[Stanislavs'kyl, F.A.]; LIPNIK, O.S. [Lypnyk, O.S.]

Remarks on the stratigraphic plan of Mesozoic sediments in the Russian
Platform. Geol.zhur. 18 no.3:108-110 '58. (MIRA 11:11)
(Russian Platform--Geology, Stratigraphic)

AYZENVERG, D.Ye. [Aizenverg, D.IE.]; BAIANOVA, N.M.; VEKLICH, M.F.;
 GOLYAK, L.M. [Goljak, L.M.]; GORAK, S.V. [Horak, S.V.];
 DIDKOVSKIY, V.Ya. [Didkovs'kyi, V.IA.]; ZELINSKAYA, V.O.
 [Zelins'ka, V.O.]; ZERNETSKIY, B.F. [Zernets'kyi, B.F.];
 KAPTARENKO-SHERNOUSOVA, O.K.; KRAYEVA, Ye.Ya. [Kraieva, IE.IA.];
 KRASHENINNIKOVA, O.V.; KUTSIRA, A.M.; LAPCHIK, T.Yu.; MAKARENKO,
 D.Ye.; MOLYAVKO, G.I. [Molievko, H.I.]; MULIKA, A.M.; PASTERNAK,
 S.I.; PERMYAKOV, V.V.; ROMODANOVA, A.P.; ROTMAN, R.N.; SLAVIN, V.I.;
 SOKOLOVSKIY, I.L.; SOROCHAN, O.A.; SYAERYAY, V.T.; TKACHENKO, T.O.;
 SHUL'GA, P.L. [Shul'ha, P.L.]; doktor geol.-mineral.nauk; YAMNICHENKO,
 I.M. [Iamnychenko, I.M.]; BONDARCHUK, V.G. [Bondarchuk, V.H.], akade-
 mik, otv.red.

[Atlas of paleogeographical maps of the Ukrainian and Moldavian
 S.S.R. with lithofacies elements. Scale 1:2,500,000] Atlas paleo-
 geografichnykh kart Ukrain's'koi i Moldav's'koi RSR z elementamy
 litofatsii. Mashtab 1:2,500,000. Sklady D.IE. Aizenverg i dr.
 Za zahal'nym kerivnytstvom V.N.Bondarchuka. Kyiv, 1960. xvi p.,
 78 col.maps. (MIRA 13:12)

1. Akademiya nauk USSR, Kiyev. Institut geologicheskikh nauk.
 2. Institut geologicheskikh nauk AN USSR (for all, except Bondarchuk,
 Pasternak, Slavin). 3. Instytut geologii korysnykh kopalyn AN URSR
 (for Pasternak). 4. Moskovskiy gosudarstvennyy universitet im.
 Lomonosova (for Slavin).
- (Ukraine--Paleogeography--Maps) (Moldavia--Paleogeography--Maps)

YAMNICHENKO, I.M. [Iamnychenko, I.M.]; PERMYAKOV, V.V.; GOLYAK, L.M.
[Holiak, L.M.]

Main features of the geotectonic pattern of the area within
the Ukrainian and Moldavian S.S.R. during the upper Jurassic.
Dop.AN URSS no.1:72-76 '60. (MIRA 13:6)

1. Institut geologicheskikh nauk AN USSR. Predstavleno
akademikom AN USSR V.G.Bondarchukom [V.H.Bondarchukom].
(Ukraine—Geology, Stratigraphic)
(Moldavia—Geology, Stratigraphic)

YAMNICHENKO, I.M. [Iamnychenko, I.M.]; PERMYAKOV, V.V.; GOLYAK, L.M.
[Holiak, L.M.]

Special features in the development of basic structural elements
in the Ukrainian and Moldavian S.S.R. at the end of the Triassic
and during the lower and middle Jurassic. Geol. zhur. 20 no.2:
53-57 '60. (MIRA 14:5)

(Ukraine—Geology, Structural)
(Moldavia—Geology, Structural)

YAMNICHENKO, I.M.

Stratigraphy of the Jurassic of the northwestern border of the
Donets Basin and the Dnieper-Donets Lowland in the light of
new data. Trudy VNIGINI no.29:100-108 vcl. 2, '61.
(MIRA 14:7)

(Donets Basin--Geology, Stratigraphic)
(Dnieper-Donets Lowland--Geology, Stratigraphic)

YAMNICHENKO, I.M. [Iamnychenko, I.M.]

Recent stratigraphic scale of Jurassic sediments in the margins
of the Donets Basin and Dnieper-Donets Lowland and possibilities
of its correlation with West European standards. Geol.zhur.
22 no.4:3-10 '62. (MIRA 15:9)

1. Institut geologicheskikh nauk AN UkrSSR.
(Donets Basin--Geology, Stratigraphic)
(Dnieper-Donets Lowland--Geology, Stratigraphic)

YAMNICHENKO, I.M. [Iamnychenko, I.M.]

Concerning the critical article by O.D. Bilyk and others,
"Stratigraphy of the Jurassic sediments of the eastern Ukraine."
Geol. zhur. 24 no.2:101-105 '64 (MIRA 18:2)

1. Institut geologicheskikh nauk AN UkrSSR.

YAMNIKOV, A.N., kandidat sel'skokhozyaystvennykh nauk, otvetstvennyy redaktor; POL'KMAN, Ye.N., redaktor; IOVLEVA, N.A., tekhnicheskii redaktor.

[The growing of wheat; a collection of translations from foreign periodical literature] Kul'tura pshenitsy; sbornik perevodev iz inostrannoi periodicheskoi literatury. Otv.red.A.N.Iamnikov. Moskva, Izd-vo inostr.lit-ry, 1956. 317 p. (MLRA 10:6)
(Wheat)

Yamnikov, A.N.

CHIZHEVSKIY, Mikhail Grigor'yevich, prof.; KISELEV, A.N., dots.; VOROB'YEV, S.A., dots.; YEGOROV, V.Ye., prof.; BALEV, P.M., dots.; ~~YAMNIKOV, A.N.~~, assistant; CHELASHKIN, Yu.G., red.; GOR'KOVA, Z.D., tehn. red.

[General agriculture] Obshches zemledelie. Pod red. M.G.Chizhevskogo. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1957. 357 p. (MIRA 11:2)
(Agriculture)

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S/089/61/011/002/001/015
B102/B201

AUTHORS: Volkov, V. S., Luk'yanov, A. S., Chepkunov, V. V., Shevyakov,
V. P., Yamnikov, V. S.

TITLE: Use of fissile absorbers in nuclear reactors

PERIODICAL: Atomnaya energiya, v. 11, no. 2, 1961, 109-121

TEXT: The present article gives a survey of usefulness and purpose of the use of fissile absorbers in reactors. Introducing fissile absorbers into the core is one of the possible methods of compensating for the initial reactivity excess. For technological and chemical reasons, only few elements are eligible as absorbers of this kind: boron, hafnium, europium, gadolinium, samarium, cadmium, and mercury. Data on these fissile absorbers are compiled in a table taken from Ref. 1 (Nucl. Sci. and Engng., 4, No. 3, 357 (1958)). Experience and investigation results gained in the USA in various reactors are dealt with. Apart from reports made at the Second Geneva Atomic Conference (1958) (Papers nos. 455, 1017), the material concerned was taken exclusively from American publications: Nucl. Engng. 4, No. 34, 11 (1959), Nucleonics, 16, No. 1, 100, 102 (1958). The various
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Use of fissile absorbers in ...

technical and design problems involved in the use of fissile absorbers are now discussed. These problems include the exact dosing of the absorber, its resistance to corrosion, taking account of the change in mechanical properties of absorbers while in operation; use of boron leads to the formation of Li and He, which must also be taken into account; additional difficulties arise with fuel regeneration. The remaining problems are of a purely technical nature, such as a removal of heat produced in absorbers. In most cases, boron is used in the form of alloys or chemical compounds, dispersed in some materials. The properties of boron in stainless steels and boron-titanium alloy (1.75% by weight of B^{10}) have repeatedly been studied (Nucl. Sci. Engng. 4, No. 3, 386, 402, 415 (1958)). Irradiating an alloy containing boron (0.56% by weight of B^{10}) reduces its plasticity considerably: to half its value with an integral flux of $1.35 \cdot 10^{10}$ n/cm², and to one-fifth at $5.87 \cdot 10^{20}$ n/cm². The volume of boron-titanium alloys increases up to 4.3%, depending on burn-up and boron content. Similar conditions are found for boron-zirconium alloys (Nucl. Sci. and Engng. 6, no. 3, 1967 (1959); Reactor core materials, 2, no. 1, 26 (1959)). Neutron capture in the absorber plays the principal role in a theoretical treatment of reactors using fissile absorbers. For the case of only thermal neutrons

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Use of fissile absorbers in ...

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being absorbed, some relations are presented, which were taken from lectures by A. Radkowsky, J. Stewart, and P. Zweifel at the Second Geneva Atomic Conference (1958) [Abstracter's note: The numbers of the papers are not given.] Various fuel and absorber distributions in the core are discussed briefly. Finally, German investigations (Von Winkel et al. Atomenergie, 4, 3, 93 (1959)) are dealt with (Study of the linear radial distribution of an absorber, and its distribution according to a Bessel function). It is finally stated that the use of fissile absorbers still meets with certain difficulties which, however, can probably be overcome. There are 7 figures, 11 tables, and 18 references: 4 Soviet-bloc and 14 non-Soviet-bloc. The most important references to English-language publications are all mentioned in the abstract.

SUBMITTED: October 8, 1960

X

Card 3/3

Vladov, A.P.; YAMNITSKIY, S.I.; FOKIN, M.M.; LARTONOV, I.V.

Methods for testing the quality of ferrite ring cores. Zav. lab.
31 no.4:459-460 1965.
(MIRA 13:12)

22875

S/089/61/010/005/003/015
B102/B214

26.2332

AUTHORS: Zeydlits, F. M., Yamnitskiy, V. A.

TITLE: Investigation of accelerating systems operating with H waves

PERIODICAL: Atomnaya energiya, v. 10, no. 5, 1961, 469-477

TEXT: A report on the most important results of the experimental investigations of accelerating systems operating with H waves given here was made already at the conference of the Fiziko-tehnicheskiy institut AN USSR (Institute of Physics and Technology AS UkrSSR) in November 1959. The investigations showed that in contrast to the earlier view accelerating systems operating with H waves (specially with H_{111} type oscillations) have important advantages in comparison to those operating with E_{010} type oscillations. These consist above all in the simplicity of the H wave cavity resonator and in the fact that the use of H waves reduces high frequency output. Linear accelerators operating with H waves can be used up to particle velocities c without alterations in their fundamental structure, which is not possible by the use of E_{010} waves. Since power

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Investigation of accelerating systems...

consumption and construction work form the main items of the cost of the modern linear resonance amplifier, the H wave accelerator is also cheaper. The reduction of the h-f power is brought about above all by the repeated traversing by the particles through one and the same accelerating potential. In order to find the optimum values of the size, parameters, and construction the change of the operating frequency f and the equivalent shunt $R_{\omega, \beta}$ with α , T , and the area S (see Figs. 6 and 7) was determined for different forms of supports in endovibrators (of the form of Fig. 2b). A comparison of the curves $R_{\omega, \beta} = f(\beta)$ shows that, for drift tubes with comb (Curve 1) $\beta < 1.5$ is economic, for those with round feet (2) $\beta > 0.15$ is economic and for those with small feet (3) $\beta \sim 0.2-0.25$ is economic.

$R_{\omega, \beta} = k f^{1/2} C_0^{-3/2} \beta^{-2}$, where C_0 is the capacitance of the condenser per unit length of the accelerator. For optimum ration between the dimensions of the supports $R_{\omega, \beta}$ changes from 600-700 megohms/m to 40-50 megohms/m in the range $0.015 < \beta < 0.15$. For lengths of drift tubes required for focusing (60-70 mm) $R_{\omega, \beta} = 35-40$ megohms/m for $\beta = 0.05-0.35$. Experiments were carried out on two models of proton accelerator tubes ($E_p = 2-23$ Mev,

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Investigation of accelerating systems...

$f = 240 \text{ Mc}$, $R_{\omega\omega} = 46 \text{ megohms/m}$; and $E_p = 0.1-2.5 \text{ Mev}$, $f = 200 \text{ Mc}$,
 $R_{\omega\omega} = 140 \text{ megohms/m}$) to check the results obtained. It was found that by
using endovibrators (Fig. 2g) with H waves wavelengths could be obtained
which were 3-5 times as large as those obtained with E_{010} wave. This
system is also 2-3 times as economic; the tube is only half as long and
the evacuated volume can be reduced to $1/20$. This system can be used above
all for ion acceleration where essentially larger waves are employed than
in the electron acceleration. A. I. Akhiezer and G. Ya. Lyubarskiy are
mentioned. There are 17 figures, 1 table, and 14 references: 8 Soviet-
bloc and 6 non-Soviet-bloc. The three most recent references to English-
language publications read as follows: J. Blewett, Symposium CERN, 1956;
J. Slater. Appl. Phys. 23, 68 (1952); L. Alvarez. Rev. Scient. Instrum.,
26, 111 (1955).

SUBMITTED: June 27, 1960

Card 3/6

L 16930-66 EWT(1)/T LJP(c)

ACC NR: AT6002496 SOURCE CODE: UR/3137/64/000/070/0001/0013

AUTHOR: Sinel'nikov, K.D.; Khizhnyak, N.A.; Repalov, N.S.; Zeydlits, P.M.;
Yamnitsky, V.A.; Azovskaya, Z.A.

63
BH1

ORG: none

21,0415

TITLE: Injection of particles through an acute-angled magnetic trap into a mirror trap with increasing fields of the mirrors

SOURCE: AN UkrSSR, Fiziko-tehnicheskyy institut, Doklady, no. 70, 1964. Inzhektsiya chastits v zerkal'nyu lovushku s narastayushchim polem v probkakh cherez magnitnyu lovushku ostrougol'noy geometrii, 1-13

TOPIC TAGS: magnetic mirror machine, particle trapping, magnetic trap, computer calculation, charged particle

ABSTRACT: The authors investigate the passage of charged particles injected through an end slit parallel to the axis of the magnetic field through an acute-angled magnetic trap. A general introduction of magnetic mirror effect is followed by a theoretical study of the effect of acute-angled field geometry on the eccentricity of particles passing through the zero field plane, and the filling of an increasing field mirror trap by particles passing

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L 16930-66

ACC NR: AT6002496

through the acute-angled trap. The paper gives 1) the conditions for the passage of particles with large and small displacement of the particle rotation center from the magnetic axis; and 2) the results of the numerical calculations of the trap filling carried out on the UMSHn electronic computer. Curves presented depict the conversion of longitudinal into transverse velocity as a function of the injection-to-final-radius ratio, and as a function of the initial radial velocity, and particle trapping during a slow field increase. The results show that the method for particle trapping presented is technologically feasible. Acute-angled traps with higher field harmonics are not studied. Orig. art. has: 21 formulas and 8 figures.

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 002

Card 2/2

L 18840-66 SWT(1) IJP(c) GS

ACC NR: AT5028589

SOURCE CODE: UR/0000/65/000/000/0388/0402

AUTHOR: Sinel'nikov, K. D. (Academician AN UkrSSR); Khizhnyak, N. A.; Repalov, N. S.; Zeydlits, P. M.; Yamnitskiy, V. A.; Azovskaya, Z. A. 58 B+1

ORG: none

TITLE: Investigation of the charged particle motion in picket fence magnetic traps 21.44.55

SOURCE: Konferentsiya po fizike plazmy i problemam upravlyayemogo termoyadernogo sinteza, 4th, Kharkov, 1963. Fizika plazmy i problemy upravlyayemogo termoyadernogo sinteza (Physics of plasma and problems of controllable thermonuclear synthesis); doklady konferentsii, no. 4, Kiev, Naukova dumka, 1965, 388-402

TOPIC TAGS: magnetic trap, relativistic particle, plasma charged particle, particle trajectory, particle motion, magnetic field

ABSTRACT: The properties of charged particle motion in magnetic traps of the "picket fence" and "magnetic wall" (with negative field curvature) types are considered and their trajectories determined by numerical integrations. The traps are characterized by axial symmetry and small angles between field lines. The analytical form of the fields is described by the expansion of the scalar magnetic potential

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L 18840-66

ACC NR: AT5028589

in Bessel functions, retaining the first term only. Since both curl and divergence of the field within magnetic coils vanish, the magnetic intensity for "picket fence" traps (easily generalized to other geometries) is determined and analytical expressions are derived for two extreme cases of extended and compressed traps. A method for determining the fields in the throat area of the trap of a given radius is also given. Application of the Lagrangian and Hamiltonian of the charged particle motion and the utilization of the cyclic azimuthal coordinate of axisymmetric fields leads to derivation of a potential in which a particle moves and determines the extent of regions of particle confinement. It is found that there always exists a region through which particles can escape. The escape criteria and a classification of transmitted and reflected particles in which the gyroradius of the particles, and hence mass, play a strong role are presented. Additional classification relative to the initial particle parameters is also discussed. In particular, it is shown that the behavior of particles injected in a direction opposite to the system axis is similar to that of those injected parallel to the axis, excepting that the initial radial separation of the former from the axis is greater. Representative trajectories are graphed. The discussion is further generalized to the relativistic particles for which presently realizable magnetic confinement schemes require very strong fields. Orig. art. has: 17 figures, 34 formulas.

SUB CODE: 20/

SUBM DATE: 20May65/

ORIG REF: 002/

OTH REF: 002

Card 2/2 vmb

L 23580-66 EPF(n)-2/EWT(1)/ETC(1)/AWG(m) IJP(1) AT/GS 1C
 ACC NR: AT6008838 SOURCE CODE: UR/0000/65/000/000/0005/0018

AUTHOR: Sinel'nikov, K. D.; Khizhnyak, N. A.; Repalov, N. S.; Zeydlits, P. M.;
 Yamnitskiy, V. A.; Azovskaya, Z. A.

ORG: none

TITLE: Injection of particles into a mirror trap with an increasing field through a magnetic cusp configuration

SOURCE: AN UkrSSR. Magnitnyye lovushki (Magnetic traps). Kiev, Naukova dumka, 1965, 5-18

TOPIC TAGS: ~~magnetic~~ trap, plasma injection, particle trajectory, magnetic mirror

ABSTRACT: The behavior of a plasma in a magnetic mirror trap formed by particles injected through a cusp configuration is studied. The particles selected for investigation are those which at injection have curvature radius of less than 71% of the Larmor radius, i. e. those which proceed without reflection into the magnetic mirror region. The eccentricity of the particle trajectory (passing through the zero field plane) due to the cusp configuration is analyzed. Two competing processes become evident; one tends to establish an E-layer as in the Astron machines and another tends to fill the axial region of the mirror trap. The analysis is further extended to determine the accumulation in the magnetic mirror trap of particles passing through a

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L 23580-66
ACC NR: AT6008838

smooth cusp field having only a zeroth harmonic. The conversion of longitudinal energy into transverse particle energy is determined as a function of the initial radial distance of the trajectory from the magnetic axis. The number of particles trapped indicates that construction of an experimental machine is feasible provided the proper magnetic field configuration is used. It is estimated that a field with high harmonic components would trap particles with broader initial velocity and injection angle parameters. Orig. art. has: 7 figures, 10 formulas.

SUB CODE: 20/

SUBM DATE: 20Oct65/

ORIG REF: 002/

OTH REF: 000

Card 2/2

PB

YAMHOV, A.A.; KUNIN, V.N.

Some theories resulting from the most recent investigations in the region of the Uzboy in the fields of paleogeography and geomorphology. Izv. AN SSSR Ser. geog. no.3:21-28 My-Je '53. (MLRA 6:9)

(Uzboy region--Physical geography) (Physical geography--Uzboy region)

Authors state, that on the basis of the geological-geomorphological structure of the Uzboy area, within the limits of the Balkan and Danatin corridors, even in the area of large fractures of local character, the tectonic breaks of ruptured character definitely are not connected with the Khvalynsk or post-Khvalynsk (upper-quaternary) deposits.

258T59

YAMNOV, A.A.

Traces of irrigation in the Sarykamysh Depression of the Middle Ages, and the age of Sarykamysh deposits of *Cardium edule* L. Izv.AN SSSR Ser.geog. no.4: 61-63 JI-Ag '53. (MLRA 6:8)

1. Vsesoyuznyy aerogeologicheskiy trest.
(Sarykamysh depression--Hydrology) (Hydrology--Sarykamysh depression)

YAMNOVA, M.A.; YEFIMOVA, M.N.; SOLENOVA, A.M.

Using a Bashkirov knotter for placing bobbins on warping machines.
Obm.tekh.opyt. [MLP] no.15:17-19 '56. (MIRA 11:11)
(Warping machines)

YAMNY, A.

Device for dismantling, assembling and regulating clutches.

Avt. transp. 34 no.12:13-14 D '56.

(MLRA 10:2)

(Automobiles--Clutches)

YAMNYI, Ya.

Fire-prevention work in the city. Pozh.delo 5 no.2:11-12 P '59.

(Minsk--Fire prevention)

(MIRA 12:3)

RYAZANOV, I.; IAMNYY, Ye.

From the history of fire prevention. Pozh.delo 9 no.10:30 0 '63.
(MIRA 16:12)

Y4-100-200, 11.5.
OLSUF'YEV, N.G.; PETROV, V.G.; YAMOLOVA, N.S.; MIKHALEVA, V.A.; SAMSONOVA,
A.P.; KHLIUSTOVA, A.I.

Role of the tick *Dermacentor marginatus* Sulz. in sustaining tularemia
infection in a natural nidus of the bottomland type. Zool.shur. 33 no.2:
290-295 Mr-Apr '54.
(MLRA 7:5)

1. Otdel parazitologii i meditsinskoy zoologii (zaveduyushchiy - akademik
Ye.N.Pavlovskiy) IEM Akademii meditsinskikh nauk SSSR im. N.F.Gamaleya,
Stalingradskaya protivoepidemicheskaya stantsiya Ministerstva zdravookhra-
neniya SSSR i Stalingradskaya protivotulyaremiynaya stantsiya.
(Tularemia) (Ticks as carriers of disease)

0LSUF'YEV, N.G.; YAMOIOVA, N.S.

Virulence of strains of *Pasterurella tularensis* isolated by direct culture from mature *Dermacentor marginatus* ticks collected under natural conditions. Zhur.mikrobiol.epid. i immun. no.8:60-64 Ag '55.
(MLRA 8:11)

1. Iz Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR (dir.--prof. G.V.Vygodchikov) i Stalingradskoy sanitarno-epidemiologicheskoy stantsii (nach.--kandidat meditsinskikh nauk N.I.Makarov)

(PASTEURURELLA TULARENSIS,

virulence of strains isolated from ticks *Dermacentor marginatus*)

(TICKS,

Dermacentor marginatus, virulence of *Pasturella tularensis* isolated from)

YAMOLEVA, N.S.
OLSUF'YEV, N.G.; PETROV, V.G.; YAMOLEVA, N.S.; MIKHALEVA, V.A.; SAMSONOVA, A.P.;
KHLUSTOVA, A.I.

Role of the ticks *Rhipicephalus rossicus* Jakim. et K.-Jakim. in
sustaining tularemia in a natural focus of the flood plains.
Zool.shur. 34 no.61224-1228 N-D '55. (MLRA 9:1)

1. Otdel parazitologii i meditsinskoy zoologii (zav. akad. Ye. N. Pavlovskiy),
IEM Akademii meditsinskikh nauk SSSR imeni N. P. Gamaleya, Stalingradskaya
protivoepidemicheskaya stantsiya Ministerstva zdravookhraneniya SSSR i
Stalingradskaya protivotulyaremiynaya stanetsiya.

(Tularemia) (Ticks as carriers of disease)

YAMOLOVA, N. S., OLSUF'YEV, N. G.

"Concerning the Strain Virulence of *Tularemia* Micro-Organisms
Isolated by Direct Seeding From Matured *Dermacentor Marginatus*
Ticks Found in Their Natural Habitat." Proceedings of Inst.
Epidem. and Microbiol im. Gamaleya 1954-56.

Division of Parasitology, and Medical Zoology, Pavlovskiy, Yevgeniy
Nikanorovich, Active Member of Academy of Medical Sciences USSR, head.
Inst. Epidem and Microbiol im. Gamaleya AMS USSR.

SO: Sum 1186, 11 Jan 57.

Yamonov, S.A.

82115
SOV/81-59-6-18674

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 6, p 81 (USSR)

24.2130
AUTHOR: Yamonov, S.A.

TITLE: Hydrophobization of Dielectrics With Silicon-Organic Compounds²¹

PERIODICAL: Tr. Vses. elektrotekhn. in-ta, 1958, Nr 62, pp 172 - 191

ABSTRACT: For evaluating the degree of hydrophobization of dielectrics (DE) by various silicon-organic compounds the method of measuring the contact angle of wetting (θ) of DE with water was used. Pure non-polar DE: polyethylene, polyisobutylene and polystyrene are hydrophobic ($\theta > 90^\circ$), polar DE having an OH-group are hydrophilic ($\theta \sim 0^\circ$). In the case of electrization by friction the surface of hydrophobic and hydrophobized DE is charged negatively, and the surface of hydrophilic DE positively. Ceramic materials which do not contain oxides and salts of metals acquire high hydrophobic properties by a treatment with alkyl or aryl-silane-chlorides and organopolysiloxane liquids and varnishes. The hydrophobization of silicate glasses and materials with hydrophobic silicon-organic compounds increases their moisture resistance and dielectric properties in a moist medium.

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M. Lipets

L 42462-65 EWT(d)/T/EED-2/EWP(1) Pq-4/Pj-4/Pk-4 IJP(c) BB/GG
ACCESSION NR: AP5006637 S/0146/65/008/001/0067/0073

AUTHOR: Yamosh, N. A.; Goncharova, V. K.

TITLE: Pulsed magnetic decoder in the BPM-20 control unit

SOURCE: ¹⁶⁰IVUZ. Priborostroyeniye, v. 8, no. 1, 1965, 67-73

TOPIC TAGS: magnetic decoder, pulsed decoder / BPM-20 control unit

ABSTRACT: The application of a new magnetic decoder based on the lack of exact squareness of the hysteresis loop is considered; the I. V. Lebedev decoder was described in "Bull. izobreteniy," 1962, no. 4. A special output-unit circuit which included the BPM-20 control was developed in order to explore the possibility of using the decoder in computers. The experiments showed that the decoder is suitable for operation in computers during 8 hours of work, no malfunction was observed and supply-voltage variation within $\pm 15\%$ proved to be tolerable. Orig. art. has: 4 figures and 12 formulas.

Card 1/2

L 42462-65

ACCESSION NR: AP5006637

ASSOCIATION: Institut matematiki i vychislitel'noy tekhniki AN BSSR (Institute
of Mathematics and Computing, AN BelSSR)

SUBMITTED: 29Jan64

ENCL: 00

SUB CODE: DP

NO REF SOV: 003

OTHER: 000

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Card 2/2

LORENTSO, D.N.; OKUNEV, I.V., inzh., red.; ZABAYKIN, A.Ya., inzh., red.;
KOZLOV, A.G., nauchnyy red.; MARES'YEV, M.I., red.; SUVOROV,
A.V., red.; YAMOV, A.F., red.; DUGINA, N.A., tekhn. red.

[Ural Railroad Car Plant] Ural'skii Vagonostroitel'nyi Zavod.
Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry,
1961. 162 p. (MIRA 15:2)

1. Ural'skiy vagonostroitel'nyy zavod (for Lorentso).
(Nizhniy Tagil--Railroads--Cars--Construction)

YAMOV, I.

Wings of joy. Grazhd. av. 21 no.10:32 0 '64. (MIRA 18:3)

1. Chlen soveta Moskovskogo gorodskogo obshchestva ozeleneniya i okhrany prirody.

YAMOV, Ivan Dmitriyevich
YAMOV, Ivan Dmitriyevich.; KLETCHENKO, A.V. [deceased], red.; SUPRUNENKO,
I.M., red.; ZUBRILINA, Z.P., tekhn.red.

[Raising pigeons] Razvedenie golubei. Moskva, Gos.izd-vo
sel'khoz.lit-ry, 1957. 110 p. (MIRA 11:1)
(Pigeons)